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THE ECONOMIC PROBLEMS OF FRANCE.[1]

I. THE PROBLEM OF SUPPLIES.

1. THE GENERAL SITUATION.

French output after the Armistice of 1940 recovered somewhat from the disastrous fall experienced in the first phase of the war, which had been partly due to the abrupt mobilisation and later to the chaos produced by the German offensive. The sabotage of production for Germany was to a varied degree effective (in contrast to the diversion of supplies to the French consumer through the ' black market '). Coal production decreased steadily, steel and iron production fell to less than one half ; production of aluminium, however, remained at a remarkably high level. Industrial production in 1943 altogether barely amounted to 50% of pre-war. Agricultural production also fell, partly because of the lack of man-power, partly because of the lack of fertilisers and chemicals. In 1943 it was perhaps three-fifths of the pre-war production. If, in certain pastoral branches, the volume of live-stock has not sensibly diminished, its quality has seriously deteriorated, thus impairing the output of meat and milk.

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[1] The material used throughout this essay is derived from the publications of the Service National des Statistiques, Paris. The author wishes to acknowledge his indebtedness to the officials whom he consulted and to Prof. Francois Perroux of the Faculty of Law of the University of Paris and the Institut Scientifique de l'Economic Appliqué. Responsibility for the conclusions and inferences rests—of course—with the author.

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The paralysis of transport through sabotage and the bombing which preceded the landing in Normandy has seriously interfered with production. After a slight recovery in September and October 1944 it is again declining because of the exhaustion of hidden stocks of raw materials and the continued shortage of coal and transport. Some of the reduced supplies, both of industrial and agricultural products, are moreover being wasted for the same reasons. Industrial production at present is perhaps 30 per cent of pre-war, while the agricultural output is roughly speaking one half.

2. PRODUCTIVE CAPACITY.

The productive capacity of France has not been impaired to anything like the same degree as a result of hostilities.

The air bombardment did not, in most cases, inflict irreparable industrial damage, though the loss of certain special machines may, in the short run, impair the efficiency of, or even paralyse some large industrial plants. This is the case, for example, in electrical distribution, where the selective bombardment of power stations and transformers has impaired the effectiveness of the whole system. But, by and large, while serious damage has in some areas been inflicted on houses and factory buildings, the damage to machinery is surprisingly light. Coal mines (except those in the Moselle) escaped completely. The capacity of the steel industry is virtually unimpaired. Bauxite mines and aluminium works have not been damaged in the South. The position in the Alsatian field is unknown. In the motor industry 80% of the buildings and 85—90% of the machines have been saved. 60% of the shipyards have been liberated (Dunkirk and St. Nazaire are still occupied) ; only 25% loss is reported in the liberated ports. The rubber industry is intact. The reports on the extent of the damage must, moreover, be viewed with some scepticism. It seems probable that the published statistics over-estimate the damage. In present conditions, as we shall see, it is certainly not in the interest of the industrialist to divulge the extent of his intact productive capacity or stocks.

More important perhaps than the physical damage to plant, and less easily assessed, is the damage to manpower. The war has resulted in heavy losses : more than 2½ million of the best workmen are still in Germany and it is not known in what condition they will be repatriated ; while of those remaining in France, many have suffered great privations and under-nourishment.

3. TRANSPORT.

Transport undoubtedly constitutes the most acute bottleneck.

(i) *Railways*. The position of the railways immediately after the campaign of liberation was terrible. Their lines were interrupted, the stations and yards put out of action, the rolling-stock and traction capacity terribly mauled by the destruction wrought by air attack, sabotage and the German evacuation. Of the 43,000 odd kilometres of lines only 18,000 were usable in September 1944. All the bridges over the Seine and the Loire were destroyed. By the end of November one of the main bottlenecks had been removed, for many of the bridges on the most important lines had been restored to some degree of use. The vital bridge over the Loire could not, however, be reopened until December. Altogether, out of 1,900 bridges and tunnels destroyed, 1,260 had been repaired or temporarily reconditioned. 250 signal boxes have also been patched up and 2,800 points and signals reconditioned. Yards (60 per cent of which were damaged) and buildings (55 per cent damage) still are in a state of acute and dangerous disrepair. Nevertheless, 33,000 kilometres, or more than 75% of the pre-war lineage, have been reopened by a determined effort.

Desperate efforts have also been made to repair locomotives and wagons. Of the 19,000 locomotives existing before the war, only 9,700 were found in order or repairable after the liberation. Of these in September 1944, 3,000 were actually usable, but a further 2,500 had been repaired by the end of November, and yet another 1,500 by the middle of January. Further repairs, however, will now take much more time as the least damaged were taken in hand first and spare parts, or raw materials, are increasingly lacking. Of the total of roughly 7,000 available at present, however, roughly 2,500—3,000 of the best locomotives have been requisitioned by the Allied Supreme Command and of the remainder a number are still in very bad repair.

The position in rolling stock is not less serious: Of about 460,000 goods wagons in 1939, only about 161,000 were left to France at the end of 1944 (some of these still un-repaired) and of these almost 50 per cent have been requisitioned by the Allied High Command.

In consequence, weekly wagon loadings, which were almost 300,000 before the war, decreased to 50,000 in October 1944, while they increased to 80,000 at the end of December. This figure includes loading for military purposes. Loading for civilian purposes is given below (Table I):

The tonnage per wagon (at 13 tons) remains very high (12.3 tons in 1943 and 9.2 in 1938).

TABLE I.

Railway Freight.

(Weekly Wagon Loadings)

	Daily Average		
	1939	1943	1944
April	37.647	23.437	13.591
May	37.285	23.816	9.274
June	38.434	23.854	4.665
July	35.529	23.218	3.707
August	32.840	21.017	1.507
September	37.366	20.017	2.354
October	39.564	19.249	5.341
November	40.524	20.333	6.982
December	37.852	18.656	7.334
Beginning of January 1945			6.399

(ii.) *Roads.* The position of road transport is equally disastrous though splendid results have been achieved in reconstruction work. Not less than 2,500 bridges have been repaired or replaced by temporary structures. The main credit for the result is due to the French authorities and workers, though considerable help was also given by the A.E.F.

Before the war France had 460,000 lorries and 60,000 public transport vehicles. In the beginning of 1945 the number was reduced to 196,000 of which 88,000, however, were light lorries and 6,000 coaches. This shrinkage by no means fully indicates the seriousness of the position. Most of the lorries are in a shocking state of repair and lack tyres. An enquiry in October showed that, in the Paris region, only one-fifth of the lorries were capable of being used for long distance traffic. In consequence an orderly control of road transport is impossible. In order to keep as many vehicles on the roads as possible the Authorities must wink at their use in the black market for, without high profits, the owners would not run them at all.

(iii.) *River Navigation.* River navigation much improved in the autumn months. By the end of December water transport had been resumed over most of the important canals. Since then the cold weather has interfered with traffic. The lack of traction (500 of the 800 tugs have been lost) and more especially of fuel has rendered exploitation of the existing, very reduced, carrying capacity (8,000 of the 15,000 barges existing in 1938 have been sunk) even more insufficient.

France, which had already lost more than 60% of its internal carrying capacity, had been deprived of fully one-half of what remained and is now forced to carry on with between one sixth and one quarter of its pre-war inland transport. In so far as a great number of French Western ports are still occupied by the Germans, and as the coast-wise shipping capacity has suffered no less, if not more, than all other forms of transport, the results of Allied policy have been very severe.

The immediate relief of this bottleneck must remain the first and most important task, as well as duty, of the Allies, not merely because it is mainly of their own making, but also because it constitutes the gravest threat to the French economic and social position. As long as it remains unrelieved, the possible contribution of France to the Allied war effort will be restricted and the present great waste of precious supplies will continue.

(4) HOME PRODUCTION.

(i.) *Mining and Industry.* The *coal* position, as shown in Table II, deteriorated sharply after the liberation because of the shortage of pit props, brought about by the interruption of transport between the Landes and the Northern coal fields. After November there was some improvement due to the opening of the Loire bridges.

TABLE II.

Supplies. (Million Tons per Month).

	Pre-War	Pre-Liberation	Autumn 1944	December 1944
Coal	5.2*	3.4	1.3—1.7	2.4
Iron Ore	1.6	0.45		
Pig Iron	0.5	0.17		
Steel ...	0.4	0.125	0.05	

* Home Production 3.3 + imports 1.9 million tons.

The decrease of output (43.9% as against pre-war) is attributable to the fall in the number of workers (9.4%), absenteeism due mainly to illness and undernourishment (13.2%), the fall in productivity (26.2%), and the shortening of the working week.

Of the average of approximately 2.0 million tons produced the Allies took up to 400,000 tons in certain months. Despite their undertaking to replace any coal used, imports have not as yet amounted to more than 100,000 tons per month. The current coal deficit of France at times has been at the rate of some 300,000 tons per month or almost one-sixth of total supplies. In January French deliveries to the Allies were restricted. Stocks at the mines, which cannot be moved because of transport difficulties, amount to 1.2 million tons.

The difficulties of transport have resulted in a catastrophic decrease in the stocks of coal in the hands of the railways and electricity and gasworks. After being carefully nursed to a tolerable level in October and November, they had by January fallen to a record low level and are far below the danger line. The railways recently had no more than two days of stocks of coal. This results in a constant embarrassment of the management and further reduces their efficiency. Gas and electricity are severely rationed. The Metro, the only form of transport in Paris, is restricted and in some parts of the country the water supply had to be reduced or stopped with grave harm to health.

Thus the coal resources at the disposal of France declined from 5.2 million tons per month in 1938 to 1.9 million tons in November and some 2.5 million in December 1944. The demand of the coal mines themselves, however, could not, of course, be reduced. Therefore, the supplies to transport were cut by 50% (from 758,000 tons to 360,000), large-scale industry by almost 75% (from 1.7 to 0.45 million) and domestic consumers by roughly the same (from 1.4 to 0.36 million). The consequences of these cuts have been aggravated by the geographical unevenness of their incidence. Should transport facilities improve, the shortage of coal will still impose a low limit on French industrial production.

Even more serious is the development of *iron ore* mining and the *iron* and *steel* industries. The addition to the French transport stock of *one* single locomotive could, according to official calculations, increase steel production by 10% at this moment.

The *textile* industry is virtually stopped. The *rubber* factories have only reopened recently as a result of the arrival of some 2,000 tons of crude rubber reserved mainly for military purposes. The *chemical* industry has also been almost entirely stopped and in consequence food supplies have been badly impaired and other production now had to be curtailed. *Bauxite* production in the South is hardly 10% of the level reached before the liberation. Stocks are nevertheless accumulating because of lack of transport. *Aluminium* output is 50% of the preliberation level. *Paper* production has fallen from 77,000 tons per month in 1938 and 22—27,000 tons in the beginning of 1944 to less than 9,000 tons in December. In the preceding months it was even less. The output of the *motorcars* was only 1,903 in these months. Even those could not all be put on the road for the lack of tyres.

(ii.) *Agriculture.* The harvests have been badly affected by the hostilities and the cumulative effect of the war. The figures (in millions of tons) are as follows :—

	1938	1943	1944
Wheat	96	63.8	58.5
Hay	52.8	28.1	24.9
Maize	5.7	1.9	2.1

The last potato crop, though a somewhat better one than in 1943, was less than half of that of 1938. However, a large part could not be transported and was lost.

The supply of fish has also been terribly affected by the war. Of the 115,000 gross tons of the pre-war fishing fleet, only 8,500 tons remain in French hands. Not less than 40,000 tons have been requisitioned by the Allies ; the rest is lost.

Total meat supplies to civilians have been reduced from 1.2 million tons in 1938 to 0.4 millions. The suppression of the Germany levy allowed in this respect a slight amelioration of the position—provided transport was available.

Meat arrivals in Paris were as follows :—

August	1.184 tons
September	7.126 „
October	7.450 „
November	12.038 „
December (3 weeks)... ...	5.700 „

Milk supplies in Paris per week varied between 220 and 350,000 litres for a population of over 4 million. Total production fell from 700 million litres to 450 millions in 1943. No recent census was possible. Most of this, however, goes into cheese and butter even in peace time. The low arrivals in Paris are attributable to transport difficulties.

(iii.) *Employment.* In consequence of the obstacles in the way of production unemployment was serious in the first period after the liberation, though it has since decreased from roughly 600,000 in October to an estimated 350—400,000 at the beginning of December (in Paris alone from 300,000 to 190,000).

The unemployed are paid full wages of which the State bears 75%, the employer 25%. Short time is widespread and the majority of factory workers are engaged on repair and reconstruction rather than actual production. As a result of the deportation of over 2.5 million workers to Germany an acute shortage is being experienced in certain skilled occupations and in agriculture. Much could be done to relieve this, and, at the same time, unemployment by a system of labour service (which would also relieve the transport and food situation if applied to agriculture), but the initiative of the Government has been hindered in this (as in so many other respects) by the fact that Vichy in the past introduced compulsory labour for the benefit of Germany. In the middle of January a beginning was made by enacting legal powers for mobilising manpower. It is to be hoped that the matter will be energetically tackled ; otherwise a further fall fn agricultural output has to be feared. In the longer run, large scale immigration must be envisaged if France is to reconstruct her economy and regain her economic strength. Fortunately, there is no prejudice against foreign workers.

5. Foreign Supplies.

Imports into France before the war were between 50 and 55 million tons, of which over 24 million were coal.

Before the liberation a minimum import programme was drawn up by the Allied Governments providing for the supply of at least 3.2 million tons in eight months beginning October 1944. Between the beginning of the invasion and complete liberation the High Command was to have been responsible for the minimum needs of the population.

All these plans came to nothing. In Normandy the problem of food supplies to the population did not arise, as it is one of the richest surplus areas of Europe. After the collapse of German resistance in August and September the inadequacy of the Allied plans became quite plain. In these months no imports were undertaken for civilian purposes though some military supplies were handed out to the population and the Government. In the six months since the liberation (apart from coal and petrol) actual deliveries to the French Government have been on a completely insufficient scale. The break-down of the import programme has been explained on various occasions by the shortage of port facilities and of ships.

(*i*) *Ports.* The German strategy of leaving strong garrisons in the great port areas and blowing up port facilities have resulted in a serious immediate loss of French import capacity both for military and civilian purposes. This move was largely responsible for the success of the Germans in staving off destruction in the autumn. With a small additional effort a considerably larger portion of the damaged port facilities could have been restored quickly than was in fact restored.

While no substantial progress has been made with reconstruction the fall of Antwerp enabled the High Command to put at the disposal of the French authorities an unloading capacity of 15,000 tons per day, which is far above the imports actually received. Port facilities will, however, re-emerge as an acute bottleneck as soon as the shipping and internal transport problems are solved. It is essential to grant high priority for the shipment of mechanical equipment (excavators, cranes, etc.) needed for the work of reconstruction at an early date.

(*ii*) *Shipping Position.* The French Mercantile Marine at the outbreak of the war consisted of 2.9 million tons. Of these 850,000 have been lost at sea either by accident or by hostile action ; 790,000 are in German or Japanese control ; 160,000 have been sold. Thus the French Mercantile Marine is reduced to 725,000 tons (and some 125,000 tons of over-aged and not fully seaworthy ships) which have in their entirety been incorporated into the Allied Shipping pool.

In spite of this appalling loss almost 70% of the pre-war tonnage (as against a maximum fall of 29% in the U.K. and Colonial register at the end of 1943 which has been sensibly diminished since) allocations to France were considerably less than the shipping space contributed by her to the Allied pool. Shipping at her disposal between September and December was negligible. In January 6 cargoes were to be put at the disposal of France, 10 in February, 10 in March, i.e. altogether 26 cargoes in the first three months of 1945. This cargo space is equivalent, if the imports come from American, to perhaps 22 ships, i.e. 220,000 tons, i.e. less than one-third of the contribution of France to the Allied shipping pool. In point of fact the January programme has not been fulfilled, and it is doubtful whether the February and March allocations will be fulfilled. In addition some shipping has been made available for imports from Africa. This does not amount to more than 40,000 tons.

(*iii*) *Imports.* The Allied relief programme planned before the invasion provided, as we have already stated, for the import of 3.2 tons in eight months beginning with October 1944 i.e. 400,000 tons per month. Even this figure represented less than 1/10th of the French pre-war imports. British imports even during 1942, the worst shipping year, were 1.9 million tons per month, or 2/5th of pre-war imports.[1] In 1944 they were over 2 million per month or almost half of pre-war. France on the other hand received in actual fact less than 100,000 tons apart from coal and petrol in spite of the fact that British reserves are incomparably higher. 45,000 tons of petrol products were also delivered. The Allies undertook to replace all coal requisitioned for military purposes, but in December only 145,000 tons had been delivered as against 400,000 received. For January 250,000 tons of coal were promised but the programme was not carried out.

The negotiations conducted recently by Mr. Law and M. Monnet in Washington resulted in drawing up a new programme (again for a period of 8 months, this time to begin in April 1945). This re-establishes the original programme of 3.2 million tons to be purchased by the French Government. Thus the pre-D-Day schedules have suffered a postponement of at least seven months, probably considerably more. Even if put into effect in April, it is very doubtful whether in the beginning at least, the monthly average of 400,000 tons will in fact be reached. Of the 3.2 million tons contemplated, only 135,000 are to be supplied by the United Kingdom, 1.3 million tons by the United States and 1.1 million from Africa. It is still uncertain whether these deliveries will actually be possible because of the lack of shipping space put at the disposal of France.

The gross discrepancy between the supplies promised before the liberation of France and the supplies actually delivered was due to the redirection of shipping space towards the Pacific. A quick change in the desperate import and supply position will be possible only if Britain consents to reduce her stocks[2] by re-direction of her current imports to France so as to avoid any loss which would result from trans-shipment.

6. A CRITICAL SITUATION.

The French contribution to the Allied war effort has been allowed to encroach upon the French civilian standard of life much more, both absolutely and relatively, than the war effort in Great Britain, and *a fortiori*, in the United States of America. The most serious aspect of this enforced contribution is without any doubt the requisitioning of transport facilities and the absence of stocks which helped Britain to weather critical periods.

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[1] And the reduction of British tonnage was offset by the increase in the specific quality of imports.

[2] If a further reduction of stocks is considered unsafe, then rations in U.K. should be temporarily cut.

Military operations must, of course, not be impeded by any reason whatsoever. But it must be questioned whether in planning global war strategy the standard of life of French civilians should not have been given a much higher priority. A redirection of supplies towards France would result in far greater marginal additions to the French war effort than any decrease suffered in consequence by Britain. Measures ought to be taken enabling certain reserves, especially of transport capacity (e.g. lorries, locomotives) to be more effectively utilised for the relief of the desperate position in France while retaining control of their ultimate use. The exhaustion of all stocks both of food supplies and of coal and other raw materials in France has brought the French economic system and the French population near the breaking point and it is much more due to chance than to efficient planning that a catastrophe has not already occurred. The suffering inflicted has been in many cases extreme. The co-operation of the Military Authorities with the French Government has been insufficient.[1]

III. DISTRIBUTION AND THE STANDARD OF LIVING.

In law all essential supplies in France are either rationed or under a compulsory system of licence. Food rationing is far more extensive than in Britain. Bread is rationed and, in principle, ration tickets have to be delivered when obtaining food in restaurants. Wine and tobacco are rationed. Only potatoes and vegetables remain unrationed. Clothing is partly on a points system ; heavier items are under licence. The same is true of household goods. Formally, all these arrangements are similar to the English rationing system.

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[1] Mr. Attlee, who visited the Liberated Territories since this paper was written, stated in the House of Commons (Wednesday, 28th March, 1945. Hansard Vol. 409, No. 56, Cols. 1431—1446) that 10,000 lorries have been sent to France. 200 locomotives are being built for UNRRA and 10,000 railway wagons are ' on order ' for France. 900,000 tons of food and 400—500 thousand tons of raw materials have been put at the disposal of these territories.

The Public Relations Division of the Allied Expeditionary Force (SHAEF) has issued a ' comprehensive statistical survey ' of Allied Aid to France. According to this the U.S. Army has supplied ' apart from coal ' 313,233 long tons of food and other supplies between November 1944 and February 1945 as against a ' maximum target ' of 248,309 tons. The Allies also delivered 125,000 tons of steel rails, 30,000 tons of structural steel, 150,000 tons of bridge equipment and 1,000,000 tons of construction equipment. 1,000 lorries have been supplied and 2,650 were loaned.

The increase in British help announced by Mr. Attlee—however belated—must be warmly welcomed. But it must be borne in mind that in these figures *all* European countries are included (e.g. Greece which, according to other reports, received more than 200,000 tons of food). The volume of goods supplied from Britain to France cannot have been substantial. The lorries supplied are certainly insufficient to alleviate the French position. The SHAEF statement must have been made under a misapprehension. The ' civil affairs import programme ' of 400,000 tons a month starting in October 1944 was a minimum programme agreed on by the Allied Governments. In planning the different military campaigns in Europe and elsewhere it should have been given high priority. The discrimination between and against Allied civilian populations must, if possible, be avoided. Without some equalisation of the level of the standard of life in all Allied countries the problem cannot be tackled.

In fact rationing has all but broken down and the extent of the diversion of supplies to the black market is formidable. If the leakage is perhaps not as extensive in industrial as in food supplies, this is mainly due to the fact that industry is more easily controlled than agriculture which consists mainly of small units. Further, because of the relative independence of the peasants in regard to agricultural and industrial raw material supplies, the Government's powers to exact deliveries of finished products against continued supplies of raw materials (e.g. coal) is very much smaller.

The consequences of the sharp fall in output constitute a powerful attraction for the misdirection of such supplies as are available. The illicit prices obtainable are a multiple (up to 20 times) of the fixed official prices at which controlled deliveries must take place. It is also to be noted that, partly because of this maldirection of supplies, partly because of the physical insufficiency, official rations have not provided either sufficient food or clothing or heating to support life. For example, official rations in Paris provided the following amount in calories in the months just preceding and succeeding liberation :—

Minimum	2,500	calories	per day
Average 1941	1,194	,,	,,
Average 1942	1,239	,,	,,
Average 1943	1,173	,,	,,
January 1944	1,173	,,	,,
June 1944	854	,,	,,
July 1944	837	,,	,,
August 1944	834	,,	,,
September 1944	1,237	,,	,,
October 1944	1,291	,,	,,
November 1944	1,155	,,	,,
December 1944	1,255	,,	,,

Only 27.7 of the minimum fat supply is covered.[1] Potato supplies were too short to provide an adequate buffer. The position is perhaps even worse with respect to industrial supplies and heating. No coal could be supplied to non-priority consumers in Paris this winter Electricity and gas supplies are cut for varying periods daily. Even hospitals etc. did not receive adequate supplies. The end of the German levies has had no visible effect because of the fall of production (and of imports).

During the period of the German occupation, official rations have been supplemented by what is termed 'colis alimentaires,' postal packages up to 2 kilos. These have been sent regularly from relatives, friends, etc. in the country to the inhabitants of the cities. As the interrelatedness of country and city is much more intimate than in Britain, well informed opinion holds that the supplies of the population were, if not equitably, at least sufficiently widely spread to avoid any real starvation. The breakdown of transport has necessitated the stopping of these supplies. Thus the maldistribution of supplies has grown considerably worse and the black market became even more narrow so that, while on paper rations improved, actual supplies have fallen further. Part at least of the high prices of the black market is explained by the inordinate inefficiency of this method of distributing supplies. People with a bicycle go out and scour the countryside and in order to receive some remuneration to enable them to continue this activity they must charge high prices.

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[1] British fat rations are over four times, animal protein rations just under four times greater than French rations. Milk was not available to non-priority consumers.

The suffering of the population has been much increased by the intensive damage to buildings. 200,000 houses were totally destroyed, out of roughly 9.5 million (as against 202,000 out of 13 million in Britain) and 1,200,000 severely damaged. The incidence was extremely uneven but geographically widespread. Most damage was incurred in the centre of smaller cities through air bombardment. The work of restoration has not been so energetic as it might have been even if the grave difficulties of obtaining supplies where they are needed are taken into account. The water supply, moreover, in many parts of the country is polluted. Finally wide areas in France are rendered unsafe by mines and their clearing is difficult because of the shortage of detection apparatus and difficulty of detection (especially of wooden and cement mines).

III. MONEY INCOMES AND INFLATION.

(*a*) *The Government Budget and Volume of Liquid Purchasing Power*

The consequences of the collapse of the French productive system and of imports (interrelated to one another) have been seriously aggravated by the steady increase of current money incomes and of the vast expansion of the volume of savings available in liquid form, which threaten to upset further the existing unbalance between available supplies and monetary demand.

The origins of this actual and potential instability go back to before the war. French war finance has never been as solidly based as that of Britain, mainly on account of the seeming impossibility of devising and efficiently administering drastic direct taxation. Hence the continued disorder lasting from 1914 to 1926. A new bout of malaise started with the Great Depression and was not ended when the war broke out. During the Vichy regime some reforms were initiated which have, relatively speaking, improved the French financial administration (e.g. by taxing certain incomes at source) but it still remains gravely deficient in other respects.

TABLE III.

Sources of Government Finance 1940—44.

	1940		1941		1942		1943		First 8 mths. of 1944	
	Mlds.	%	Mlds.	%	Mlds.	%	Mlds.	%	Mlds.	%
Taxes	83	25	90	32	110	36	136	32	88	20
Loans	139	42	113	41	125	41	172	40	100	34
Credit from Central Bank	106	33	76	27	71	23	117	28	104	36
Total	328	100	279	100	306	100	425	100	292	100

The national debt rose from frs. 445 milliards to 1,523 milliards in August 1944 and 1,600 milliards in January 1945. Not quite half of this increase has been procured from the Bank of France (See Table II).

TABLE IV.

Changes in the National Debt.

	Aug. 1939	Dec. 1942	Dec. 1943	Aug. 1944
		in milliards of Frs.		
Perpetual Debt ...	55	44	44	44
Funded Debt ...	186	243	294	301
Annuities	62	63	64	74
Medium & Short-Term Debt	106	121	519	587
Interest Bearing Debt	409	771	921	1,006
Central Bank Credit ...	36	295	412	517
Grand Total National Debt	445	1,066	1,333	1,523
Index: Interest Bearing Debt	100	189	226	246
Grand Total (Aug. 1939) = 100	100	239	300	342

For the present year Government revenues are estimated at perhaps Frs.150 milliards. In contrast Government expenditure will certainly increase above Frs. 450 milliards. During the first quarter the preliminary estimate puts the expenditure at Frs. 101 milliards out of which Frs. 58 milliards are for civilian purposes, the rest for National Defence.[1] It must be borne in mind, however, that services rendered to the Allies under Mutual Aid, which works somewhat unilaterally, will amount to a considerable sum. Added to this is the cost of re-equipment of the French Army apart from those deliveries which will be made by the Allies and the cost of mobilisation which is contemplated.

Thus the Government deficit alone opens an inflationary gap upwards from roughly Frs.300 milliards per annum, which must be covered either by new taxation or by (enforced) savings if it is not to cause a further inflationary pressure and, eventually, a loss of confidence in money and a flight into goods, i.e. hyper-inflation with disastrous consequences on production and supplies. The rationing system, as we have seen, is incapable of en- forcing savings ; thus drastic reforms are required to enforce controls, to increase the yield of taxation and/or other means must be found by which the flow of money demand can be strangled.

Quite apart from any current inflationary pressure, the inflation in the volume of liquid funds liable to increase money demand is even greater. The total liquid purchasing power (in notes, current deposits and saving deposits) was of the order of 1,000 milliards Frs. (as compared with 264 milliards in 1939) two-thirds of it in the form of notes.

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[1] This compares with a total expenditure of Frs. 113.6 milliards in the first quarter of 1944. Of this only Frs. 39.8 milliards were for budget purposes, Frs. 50.4 milliards were the cost of occupation, Frs. 18.9 milliards were needed to finance the deficit of the Franco-German clearing and Frs. 4.5 milliards were paid to Italy. The German occupation in fact, cost Frs. 73.8 milliards. The decrease in the Budget estimates is therefore 11 per cent. The total cost of the German occupation (apart from damage inflicted and income lost through deportation) is estimated at Frs. 1,000 milliards.

The public and banks hold some Frs. 600 milliards of 'Bons de la Defense' or other Treasury bills part of which (barring a State default) can be converted into money at par at short notice. It is estimated that the peasants hoarded about Frs. 200 milliards of bank notes. For the moment they consider these hoards as a capital reserve, since their stock-in-trade, implements, etc. have deteriorated and the land needs drastic improvement to regain its fertility. Peasant hoarding and a reduced velocity of circulation in other sections explain that while monetary circulation has expanded five-fold since 1939, prices have not risen in anything like the same proportion. On the basis of the (admittedly artificial) price index numbers, no sign of a general flight from money into goods, can as yet be discerned. The threat of a potential hyper-inflation, however, is ever present.

TABLE V.

Indices of Prices.

Year	Food	Industrial Products			General Index	General Index weights of 1938
		Total	Materials	Semi-Finished Products		
1938	100	100	100	100	100	100
1939	99	100	110	109	104	105
1940	125	139	132	146	132	139
1941	158	160	146	174	159	172
1942	178	181	168	193	180	201
1943	251	201	189	212	226	234
1943	253	212	202	222	233	249
Dec. 1943	287	239	224	254	268	275

It is not possible to give even an approximate estimate of the relative importance which the current deficit and the potential flight from existing money holdings might represent. No estimates of the French national income are available nor can any be available. This is not merely due to the fact, already mentioned, that French statistics during the occupation were systematically falsified for patriotic motives, but also because even now it is impossible to know how much of the production of France passes into consumption at prices other than official prices. There can be no doubt, however, that the primary cause of inflation resulting from the abrupt decrease in supplies has been considerably increased by the policy of the Government which continues to increase money incomes.

(*b*) *Income Policy.*

At the moment of the liberation, the wage index showed a rise of 65% as compared with pre-war, having been held constant at that level by the Vichy authorities. Industrialists, however, supplemented money wages with remuneration in kind. The cost of the latter was charged to, and in any case diminished the supplies available for, the Germans. If these supplies are included the wage index at the liberation might be put at between 190 and 200 (1939=100). Agricultural prices varied between 280 and 300, industrial prices were held at 220.

The demand for an increase in the wage level was sharp and politically hardly resistible, especially as labour suspected that the employers, notably those who had collaborated with the enemy, had succeeded during the occupation in increasing their incomes, both relatively and absolutely. A 40% increase was granted which carried the index number of money wages to 250. The extent of the additional remuneration in kind decreased ; but it still represents a fairly important fraction. In order to prevent the emergence of a cumulative vicious spiral through further demands for wage and salary increases the Government decided both to hold industrial prices constant, in spite of this sharp increase in production costs, and to prohibit wholesale dismissals.

A further substantial addition to money incomes has recently been granted by the increase in the basic salaries of civil servants. (This is already included in the estimate of the budget deficit quoted.) It increases lower salaries by up to 40% and will cost some 20 to 25 milliards. Not the whole of this rise will increase current demand. A substantial part of the increase in the higher salaries is being retained as a compulsory saving (pecule) and a greater part of the increase (up to 75%) in the lower salaries represents merely a consolidation of divers war additions to the salaries which have already been paid. It is nevertheless to be feared that the inflationary pressure will increase. The psychological implication of the rise in salaries combined with a further deterioration in the black markets, and the necessity of raising the official price of both industrial and agricultural products may easily lead to a further turn in the vicious spiral by new wage demands. The stablisation of official prices does not provide the basis for a general policy of stabilisation. The Trade Unions base their demands on the effective cost of living and this includes the ' black market.'

(*c*) *Proposed Solutions.*

Opinions differ sharply about the method of re-establishing stability. The Bank of France and the Ministry of Finance have succeeded in persuading the Government to find a solution for dealing with the excessive money demand by ' orthodox ' measures. A loan was issued at 3 per cent. During the period of subscription the need for a prestige success prevented any direct action which might ' impair confidence.' Such partial and rather haphazard schemes of nationalisation as were enforced by public opinion (e.g. the coal mines, Renault works), were sharply attacked by the protagonists of this school as endangering the success of the policy. Eventually the loan achieved a considerable success. Total subscriptions reached Frs. 163 milliards. Of this less than Frs. 75 milliards were subscribed in bank notes. But a voluntary loan could obviously not bring any appreciable relief to the inflationary situation in the black market. People will not inflict serious hardship on themselves or their families in order to subscribe to a loan, and producers in consequence will not be forced to divert supplies to official channels. The inflated money demand surging towards the depleted markets for necessities was not restricted. Steps in the same direction are the conversion of certain high interest bearing long-term bonds and the reduction of the Bank Rate to facilitate it.

A further measure of the same type which is being contemplated is a capital levy. In this connection, the Bank of France and the Ministry of Finance oppose any direct census of existing wealth which could be undertaken when the bank notes are exchanged for a new issue. They wish to assess the levy by merely multiplying the income tax assessment on unearned incomes. It is also proposed to confiscate illicit war profits. Any more drastic action would, in their view, impart a serious shock to confidence ; would discourage savings and might result in a temporary decrease in the flow of current supplies. Of these arguments the first two are certainly fallacious. The shock to confidence could not result in an export of capital as foreign exchanges are controlled. It is hardly likely to decrease saving further as it would restore confidence in the monetary unit which is beginning to wane. The incidence of the proposed levy is, moreover, bound to be extremely unjust because of the inefficient administration of the income tax. Confidence will in any case by shaken by a capital levy, as levies once instituted can always be repeated. It is fairly obvious, moreover, that ample credits would be put at the disposal of the tax-payer ; otherwise the cheap money policy, which is a corner stone of the plans of this school, would have to be ended. Hoarding would furthermore escape almost unscathed if the levy is based on income assessed for unearned income-tax. The confiscation of war-profits must also remain generally ineffective, so long as a thorough census is not carried out. Only the third argument has some justification, at least in the short, if not in the long run. It depends on the volume of supplies under Government control whether it should be allowed to influence the decision (or at least its timing).

The protagonists of a more drastic method of curbing inflation point to the fact that while in some parts of France inflation has not yet assumed an extreme speculative form where there is a flight from existing hoardings into goods, there are definite signs in other provinces and even in Paris that such a flight has already started. There is, for instance, a flight into Belgian francs by way of supplies from Northern France to the Belgian black market. They also emphasise that the confidence in the money cannot long be maintained if the present policy continues and further wage and price demands should be made and met. Even a drastic change in Allied policy towards France could not immediately revolutionise the French supply position. Therefore, in their view immediate action is needed to stop a further aggravation of the inflation; otherwise supplies will be even more drastically curtailed because of the refusal of the producers to sell against money, than if measures against the black market are taken.

In their view such effective direct control of supplies as would prevent current incomes and/or liquid holdings from entering the market of essentials cannot be established. Expenditure rationing, national control of selling, or of transport, etc., which would theoretically give a complete solution, are administratively, politically and psychologically difficult in the short run. They conclude that the only measure which could impart a drastic enough shock to the black markets is a complete freezing of the liquid purchasing power in the hands of everybody. This would be achieved by blocking all bank notes and bank deposits above a certain minimum thus repeating more stringently the Belgian experiment. It is realised by its more sophisticated advocates that this expedient would give only temporary relief as the inflationary gap would not permanently be closed. It is hoped, however, that the effects of such a drastic reduction of available purchasing power would last a sufficiently long period during which the effectiveness of the existing controls over supplies and also the volume of supplies could be sufficiently increased so as to restore the equilibrium between supply and demand and end illicit trading.

Opposition to measures of a drastic character comes from those who are opposed to any and every strengthening of the role of the State in economic affairs. They reject the proposed 'monetary' measures because they are convinced that action in that field would be inevitably followed by the strengthening of the existing, but inoperative, controls over production and distribution and the planning of investment. Thus the somewhat peculiar picture presents itself that the Ministry of Finance and the more conservative elements of the Government and also the Bank of France favour a policy which is frankly *inflationary* in character because that policy permits the maintenance of the principle of 'free' production for 'free' markets on the basis of the 'profit motive' (however disorganised and corrupt these markets must become as a result of inflation). Those circles, however, which in past depression periods opposed the deflationary policy of the Bank of France and such Ministers as M. Flandin, have now been forced to advocate *deflationary* measures because they fear that all conscious planning of reconstruction would come to nought if the money economy collapses before the long-term plans can be elaborated and put into effect.

CONCLUSIONS.

(1) The basic economic problem of France is a consequence of the paralysis of her transport system, a paralysis which has disintegrated the French economy and depressed production to a far greater extent than the reduction of the available basic productive capacity, including manpower. It is no longer possible to talk about homogeneous markets or prices. Prices differ from region to region, even the attitude towards money differs fundamentally. The sharp primary inflationary pressure emanating from this collapse of production is intensified by the increase in money demand due to the financial, monetary and income policy of the dominating section in the Government. This has resulted in a very substantial increase in money incomes. The cumulative movement of the vicious spiral has been slowed down by the price stabilisation policy and by peasant hoarding. It is questionable whether this can be continued.

(2) It is to be feared that any further decrease in supplies or increase in money incomes may let loose a true inflation by way of dis-saving, i.e. a flight from money and the refusal of producers to sell for money. There are some signs that this process has, at least in some regions, already begun.

(3) The administrative machine which can be used to solve the problem is of very varying strength. No unanimity exists within. The

more conservative elements wish to avoid any direct control over industry or rather to avoid making the existing controls effective. They hope an increase in supplies will prevent a complete collapse of the monetary system and thus pave the way to a return to 'normal.' The proposals of the more radical Ministers are also conditioned by their scepticism about the possibility of effective control. They have not wholly envisaged the limitations of schemes modelled on the Belgian pattern. They are pre-occupied with the threat of monetary collapse which would take the form of a runaway rise of prices, steady increase in the relative importance of the black markets and, eventually, a shrinkage of supplies. But such monetary means as are practicable cannot provide a more than temporary solution. Expenditure rationing, which would permamently limit effective money demand and ensure its fair distribution, cannot be introduced for the lack of the necessary administrative machinery. All that can be done is a once-for-all cut in available liquid purchasing power. As blocked bank balances are unfrozen and banknotes are provided for wage payments the inflationary pressure would, however, once more increase. It is questionable whether in the short period available effective control can be re-established, if other measures are not undertaken simultaneously. A drastic deflationary shock would, furthermore, result in an—at least temporary—decrease in available supplies. The consequent hardship might prove politically fatal to the policy and its advocates.

(4) An attempt at solution, if it is to be successful, might with advantage operate from different angles simultaneously.

(*i*) It is essential to procure supplies of transport material, primary products (including army foodstuffs, fats) and coal ; without an increase of transport and productive capacity and its effective control the present chaos will continue. In the short run these can only be secured by Britain agreeing to forgo current overseas supplies and deplete her stocks (especially of transport).

(*ii*) It is equally essential to assert the powers of control over French production and distribution which, though theoretically in being, are largely ineffective.

The strategic bottlenecks which offer most hope for such an attack on the black market are :—

for industrial products : the supply of coal as well as raw materials and rail transport ;

for agricultural products : transport of all kind.

No supplies must be permitted to reach producers who do not deliver final products. All transport should be supervised to check the flow to black markets.

To reduce the temptation to producers, use should be made of subsidies to both agricultural and industrial producers, and to transport agencies. The cost of stabilising prices should not be permitted to fall on entrepreneurs. If rationing is made effective over necessities the resulting increase in money incomes would not be harmful.

One of the most important tasks of the Government would be the establishment of direct channels to the consumer, either by way of directly controlled sales of essentials or, in some cases, by the establishment of communal feeding on the model of the British factory canteens and British restaurants, so as to correct the existing extreme mal-distribution of such scant supplies as exist.

In order to reduce money demand for a transitory period all banknotes should be exchanged and new banknotes only be provided up to a maximum limit. The balance of banknote hoards should be blocked and credited either to bank-accounts or bonds issued against them. All bank-deposits should be also blocked. Payments from blocked to blocked accounts should only be permitted :—

(*a*) for capital purposes ;
(*b*) for the payment of supplies obtained on the basis of the licence of the Ministry of Industrial Production or Agriculture ;
(*c*) for wage-payments ;
(*d*) for certain presonal expenditure for which cash payments need not be proscribed ;[1]
(*e*) cash up to a monthly limit.

Retailers and wholesalers should only be able to obtain supplies against cash (or a certified cheque of a bank to be issued only against the deposit of cash).

The main banks and the postal payment system and especially the Bank of France should be made agents of the Government as in Britain for the purpose of exchange control.

The census of banknotes and bank-balances and of the National Debt should be made the basis of a capital levy which should discriminate against war profits and in favour of war-losses. The valuation of other assets should be made by the taxpayer, the State having the option to exact either cash payment or delivery in kind of any part of the wealth for the discharge of the part or the whole of the obligation. This ensures fair valuation of non-liquid wealth.

The administration of the tax-system should be made simpler and then more effective. Taxes on luxury consumption (especially large houses and flats) could be increased to diminish the inflationary effect of subsidies.

Such administrative reform of the financial system and of the credit controls is more important than the blocking of liquid purchasing power. The latter should be regarded as a subsidiary emergency measure to be applied if the direct controls cannot speedily be strengthened and if the increase in supplies from Britain seems inadequate to alter the relation of supply and demand sufficiently to end the threat of a monetary collapse.[2]

T. BALOGH.

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[1] Certain non-scarce services (amusements) should be obtainable against postal orders or stamps. Rent should be paid by cheque.

[2] Since the present paper was prepared M. Mendes-France resigned and Mr. Pleven, the Minister of Finance took over the Ministry of National Economy. In his Budget Speech he announced measures which represent an attempt to resolve the monetary and production crisis by ' classic ' means. The proposal to re-establish equilibrium by freezing the inflated purchasing power has been abandoned.

A similar policy was tried between the wars. It failed to strengthen France and led to the breakdown of 1940. It does not seem more auspicious today when the

A SURVEY OF WAR CONTRACT PROCEDURE

I. Introduction.

Before the war Government Departments were able, as a general rule, to place contracts by competitive tender. It was assumed that this procedure provided an adequate guarantee that the requirements of the Government would be met with reasonable efficiency and without undue profiteering. The validity of this assumption is open to doubt. Price-rings, tacit understanding between members of a trade association, or the mere fact that certain dominant firms tend to become price leaders reduces the competitive safeguard. Already during the re-armament programme the limited control of price exerted by competitive tender became the exception, and was replaced by direct forms of contract with individual firms. During the war the competitive tender has disappeared almost entirely,[1] owing mainly to the need to use every bit of capacity in existence, but also to the necessity of exerting, in varying degrees, direct control of the placing of contracts for reasons of defence, labour supply and so on. The methods adopted by Departments for settling prices under these conditions are obviously of the greatest importance.[2] Moreover, in view of the limitations of the competitive tender mentioned above, it is clear that the experience gained in contract methods during the war may prove of considerable value in peace-time. This article attempts to survey the major problems of war contract policy.

The Size of the Problem.

Some idea of the rapid growth in the size of the contract problem can be gained from the following Table :—

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problems are more acute, the reserves of France much less. A thorough going economic reform in France seems sorely needed. Economically French industry is substantially more backward even than British. Practically no new investment, either extension or replacement, and to a large extent not even maintenance, has been undertaken in France since 1930. The wear and tear, quite apart from obsolescence, has been prodigious. Man-hour efficiency is shocking. Yet France is faced with a serious manpower shortage which renders not merely an industrial but an agricultural reform essential. An investment programme is required which is far beyond the strength of private industry whose reserves have been exhausted. Private firms, moreover, could not undertake the risk of the investment. Only by an all-round increase in efficiency, and therefore in consuming power, can the investment be justified. Thus even from a technical economic point of view a planned development programme is a *sine qua non*.

[1] In 1938 26% of the value of total orders placed by the Air Ministry were placed by competitive tender. This figure fell in 1939 to 14%, in 1940 to 4%, and in 1941 and 1942 only 1% of Ministry of Aircraft Production orders were placed in this way.

[2] 'My Lords regard the contract in war-time as something more than a means of recouping to the contractor his reasonable expenditure and giving him in addition a fair reward for his endeavours and the use of his capital in the form of profit. They are satisfied that the contract can be made to play a substantial part in securing that the supplies which the nation requires are obtained with the minimum use of the nation's resources and the maximum of speed.' Treasury Minute dated 12th February, 1944, in the Report of the Public Accounts Committee 1943. The Select Committee on National Expenditure has, throughout the war, held strongly the same opinion. *Cf.* Fourteenth Report Session 1942—3.

Ministry of Supply Contracts *

Year to 31st March	No. of New Orders Created	Approximate Value (1938=100)
1938—39 (War Office)	19,000	100
1939—40	39,000	460
1940—41	57,608	898
1941—42	74,361	1,040
1942—43	99,229	1,153

*Appendix 1, Select Committee Fourteenth Report 1942—3.

The number of orders created increased over five times, and the average value per order placed doubled in the five years 1938—39 to 1942—43. These figures include all orders for stores and munitions, placed with firms and R.O.F. and Agency factories. 44% of the orders placed in 1942—43 were for general stores, but the value per General Store Order was much less than the value per Munitions Order (the ratio was 1 : 3.41). In the year 1942—43 also the Ministry of Aircraft Production placed some 20,000 new contracts.

These contracts are extremely diverse : they may be for boots or bombs or aero-engines : they may be for new products or for repairs. Absolute uniformity of contract procedure is therefore out of the question. That does not mean that the type of contract used is of no importance. On the contrary, it has been recognised since early in the war that certain types, notably the fixed, or firm price, contract are more conducive to efficiency than others of the ' cost-plus ' variety, and it has been the policy of Supply Departments to place a growing proportion of contracts on the former basis. Thus the proportion of fixed price contracts placed by the Ministry of Supply rose from 60% of all orders placed in 1941—42 to over 72% in 1942—43. Less than 1.5% of the number of Ministry of Aircraft Production contracts, amounting to less than 5% of the total value, were costed, the remainder being fixed price contracts.

II. THE OBJECTIVES OF CONTRACT POLICY.

When placing a new contract the primary objective is to secure the output of the article required with a minimum use of plant, man-power and material, in the quickest possible time. This broad principle will govern both the selection of the particular firm for the placing of the contract, and also the way in which the firm selected should carry it out. It is with regard mainly to the latter that contract policy plays its most important role in the war economy. As the Ministry of Supply argued, the allocation of capacity is ' very largely conditioned by a number of considerations of a non-monetary kind which cannot be disregarded.'[1]

Once the allocation has been decided however, the aim of the contract is to secure that the firm produces the goods with the least use of resources : the contract should therefore be of such a type as to offer a direct inducement to the firm to reduce costs. It may be convenient to set out here the principal types of contract, which can be looked at in the light of the above.

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[1] Fourteenth Report, Appendix 2. This is only true when there are no reserves of capacity and labour at all. It should be possible immediately after the end of hostilities in Europe to dispense with the marginal firms, if the more efficient firms can expand capacity within a reasonably short time.

1. The *Firm Price* contract. This excludes allowance for variations in cost of materials and labour, and is possible only if there is competition or if adequate data about costs exist. Such contracts give a full profit incentive, subject to the limitations of E.P.T. (see below).

2. The *Fixed Price* contract includes allowance for variation in labour and material costs, though not of course in usages.

The purpose of both these types of contract is to set a price before work is begun, or at an early stage of production. The firm can then strive to increase efficiency, in the knowledge that any cost reductions will accrue to it in the form of higher profits. This is subject to the provision that the price should not be so high as to enable the firm to reach its E.P.T. standard without special effort. If it is too high the incentive is very much reduced.[1] Both these types of contract depend for their success on fairly accurate advance knowledge of what costs ought to be incurred. There are various tests of this which we shall discuss below.

3. In *Maximum Price* contracts, a preliminary ceiling price is fixed which on no account will be exceeded. The final price, however, is settled on a basis of actual cost incurred plus an agreed profit.[2]

4. *Cost Plus* contracts are now used only when there is no alternative, *e.g.* in some forms of repair work.

5. The *Target Cost or Target Price* contract is an interim type which may be used when the attempt is being made to move a firm from a *cost-plus* to a *fixed-price* basis. An initial standard figure is agreed and if the firm incurs less than the standard it gets part of the saving, provided it can be attributed to its own efforts.

The last three types of contract all depend upon *post-costing*, the ascertainment by examination of actual costs incurred. There is now universal agreement that the cost-plus method should only be used where there is no possible alternative.[3] It offers no incentive to reduce costs : indeed where the profit is calculated as a percentage of cost there is an incentive to increase costs. In theory the maximum price contract sets a limit to possible cost increases : in practice firms try to get the maximum set so high that there is little danger of exceeding it. In such cases there remains no incentive to reduce costs, since none of the 'savings' made accrue to the firm. The target cost contract would appear to be an improvement in this respect : 'Its practical utility is however diminished by the time inevitably taken after the contract is completed in ascertaining the cost and consequently in determining the profit.'[4]

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[1] cf. Kalecki, 'Excess Profits Tax and Government Contracts,' BULLETIN, Vol. 4, No. 2.

[2] In Ministry of Supply Contracts either the total profit or the profit per unit may be agreed in advance. In the latter case the profit per unit will be common to several contractors.

[3] It is interesting that in 1940—1 : 'Considerable pressure was brought to bear on the Department to introduce cost-plus contracts, or even to abandon contracts altogether in the normal sense and to issue directions to undertake work with payment guaranteed at a level such as to allow the firms automatically to make profit up to their E.P.T. standard.' (M.A.P. Memorandum. Select Committee, Fourteenth Report, p. 91).

[4] M.A.P. Memorandum, ibid. p. 95.

The first objective of contract policy is therefore to get as many contracts as possible on a fixed or firm price basis. But this in itself is not enough. The price must be such as to yield a ' reasonable ' profit only if the firm strives to maintain and increase efficiency. With a high rate of Excess Profits Tax this means in practice that the price should be low enough to call forth an effort if the E.P.T. standard is to be reached. Even without E.P.T. the policy of squeezing profit margins should be followed. Thus the Department must have accurate information *in advance* of the costs which ought to be incurred by a particular firm, or in a particular process.

III. The Problem of Costing.

Post-costing of completed contracts can give full and accurate details of what direct costs of production have been incurred in producing a particular item. It does not show necessarily what costs *ought* to have been incurred, though in time the compilation of comparable cost data from various firms makes possible fairly accurate estimates for the future. To be of use in determining future contracts, however, the data must be quickly obtained. Delays in determining costs have been a serious problem throughout the war. The number of completed Ministry of Supply contracts awaiting costing at different dates was as follows :—

Completed Ministry of Supply Contracts Awaiting Costing.

February, 1940	*February, 1942*	*31st May, 1942*	*29th May, 1943*
4,200	9,000	12,800	7,486*

* This reduction was achieved by using compromise settlements in a number of cases

The consequence of this accumulation of arrears was that ' the limited staff of cost accountants available continued to be absorbed almost entirely on actual cost investigations, and for a long time the Ministry were unable to divert more than a small number to the important task of analysing the Department's records in such a way as to provide the data necessary for the determination of fair fixed prices for future orders.'[1] Arrears had begun to accumulate before the war broke out and it seems that until 1943 (no later data are yet available) the problem grew worse.

Current Costing can under certain conditions elicit sufficient information to permit moving contracts on to fixed prices. It also shows the *trend* of costs sufficiently early to prevent fixing prices consistently too high.

The Ministry of Supply used this method, which lessens the strain on the limited accounting staff to a greater extent than other Departments. They did not, however, until 1943 make any use ot all of the alternative of technical cost estimation. Indeed in the memorandum to the Select Committee arguments are brought against using technical costing which appear weighty until it is noticed that in 1942 the Ministry ' used a little less than two thirds of one man's time ' and in 1943 the time of only 9½ men on technical cost investigation. At the end of 1943 there were some 55 investigations being undertaken for the Ministry, practically all of a minor nature : in that year nearly 100,000 new contracts were placed.

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[1] Select Committee, Fourteenth Report, p. 39. Similar delays occurred in other fields. For example the number of accounts outstanding for voyages which had been completed rose from 6,700 at 31st March 1943 to 8,000 at 31st December 1943. Civil Appropriation Account, 1942.

Technical cost estimation was used before the war by the Admiralty and later by the Air Ministry as a means (*a*) of getting a sufficiently accurate estimate of what direct costs ought to be to allow the early movement of contracts on to fixed prices ; and (*b*) of revealing at an early stage remediable inefficiencies in a particular firm. Both the Admiralty and the Ministry of Aircraft Production have used this method of costing widely during the war, checking it by selective post-costing. However the personnel of the Technical Costs Section was too small to make the fullest use of this technique : in 1942 the staff was only 179, though it increased rapidly in 1943 to 277.

The odd situation mentioned above in which the evidence submitted by one Supply Department ignored completely the experience of other departments in the same field does suggest that the co-ordination of contract policy was not very strong. The Select Committee indeed made this one of their major criticisms in 1943 and recommended that, not only should the Technical Costs section be strengthened and expanded, but there should be a special committee appointed to conduct a stock-taking review of the four years' experience of war contracts Such a committee would consider ' methods of cost accounting, recording man-hours in jobs, etc., and for collating and interpreting such records.' The Treasury rejected the recommendation for immediate review by a special Committee. ' The Departments do not feel that at this stage of the war there is any necessity for, or can be any question of a radical alteration of methods and it is rather, in their view, a matter of reviewing procedure as will be necessary in the transition period.'[1]

IV. THE PROFIT RATE

' Profit is intended :—

(*a*) to give a return on the capital provided by the Company employed in the business, including money borrowed for the purpose of carrying on the business ;

(*b*) to provide for the risk to the capital employed ; this risk may be general and derive from the type of assets in which capital is invested, or particular and derive from the chance that a loss may be incurred in executing that particular contract ;

(*c*) to give an incentive to the contractor to achieve maximum efficiency.

Provided that production is normally efficient, and that costs can be accepted as fair and reasonable, the general standard of profit approved for Government contracts in executing which the contractor is not at substantial risk is 7½ per cent on the capital employed in carrying them out.'[2]

This statement of principle refers mainly to fixed price contracts.

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[1] Twelfth Report from Select Committee : Session 1943—44, November 1944.

[2] Select Committee Fourteenth Report 1942—3, p. 101.

For cost-plus contracts only item (*a*) has any application ; there is no risk to the capital employed ; nor is there any incentive to increase efficiency. For maximum price contracts there is a negative incentive. But there is, in the opinion of the Select Committee, a definite tendency to set the maximum on the high or 'safe' side ;[1] to the extent that this is the case the incentive is weaker and the risk is reduced at the same time. In theory, therefore, the profit should be just sufficient to cover the interest on the capital employed : 7½ per cent would seem more than adequate for this purpose.[2] Actual profit rates on costed contracts have been higher. In 1943 returns from 730 firms working on costed contracts for the Ministry of Supply over a period of 5 months showed a profit rate of 9.68 per cent on the capital employed of £240 million and a total cost of production of £350 million.[3] Much higher rates were earned on costed sub-contracts.[4] An analysis was made of some 3,300 trading results of Ministry of Supply sub-contractors, mainly for financial years ending in 1942 or 1943.[5] Less than 1,300 of these results relate to larger firms, with more than £50,000 capital employed. The profit rates of the larger firms are tabulated below.

Profit Rates Derived from 1,300 Trading Results of Sub-Contractors employing £50,000 Capital and over.

Profit Rate	*% of Firms*
Loss	2
0—15 per cent	25
15—30 per cent	35
30 per cent and over	38

No average profit rate for all the firms is given : but the Table shows that nearly three quarters of the firms earned profits at a rate exceeding 15%. Although the smaller firms showed a higher proportion of losses (9%) they tended to obtain on the average an even higher rate of profit than the larger firms. In cases where the profits are very high the Ministry of Supply attempt to negotiate a retrospective price reduction; in general, however, they have to be content with a refund. Even new sub-contracts may be placed at the old price when it is known that a further refund will be necessary.[6]

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[1] Of a batch of 6,500 contracts examined by the Ministry of Supply 28% were closed at the maximum price : the remaining 4,700 contracts were closed below the maximum, with a total 'saving' of 14% of the value of the 4,700 contracts at maximum prices. Another sample was investigated by the Select Committee which produced a very significant result. 80% of the firms in this sample fell into two clearly defined groups. One third of this sub-group gave figures from 80—95% of contracts closed *at* the maximum price : two-thirds, however, gave figures of 90—100% closed below the maximum.

[2] Considerations of this kind were probably responsible for the reduction of the 'normal' profit rate from 10% at the outbreak of war to 7½%.

[3] Minutes of Evidence taken before The Committee of Public Accounts 1944, Appendix 15.

[4] Normally it is left to the main contractor to settle prices with sub-contractors' but in some cases the Ministry of Supply asked main contractors to include a costings clause in sub-contracts of £1,000 or over.

[5] Civil Appropriation Account (Class X) 1942, p. xxv.

[6] A minor undesirable consequence of this procedure is that the main contractors get a higher profit as their costs included the unrevised subcontract prices. A more

In *fixed price* contracts all three principles of determining the profit rate come into play. The starting point is that the firm should in general earn 7½ per cent on capital employed, but that higher rates should be allowed for where risk is abnormal, or where the firm is particularly efficient. The Ministry of Aircraft Production, for example, with Treasury approval aim at allowing profits from 10 to 15 per cent on capital employed. The Public Accounts Committee were of the opinion that an actual level of 15 per cent would be out of proportion to the rate obtained under Treasury policy in costed contracts. Before discussing the actual profit rates obtained it will be convenient to set out the method of arriving at the fixed price, and some of the problems arising from it.

Profits are to be related to capital employed: however, what the Department is looking for is a profit ' mark-up ' which, when added to cost, will give the price. No attempt is made, it would indeed be an impossible task, to isolate the capital employed on any single contract (unless the contract covers the entire output of the firm). In practice ' the rate of profit to be allowed on costs is obtained by dividing the appropriate profit return on capital by the ratio of the turnover[1] of the firm to the capital employed during the year or years in which the execution of the contract falls.'[2] Where part of the capital employed is provided by the Government (in 1943 about one-third for the major aircraft, aero-engine, propeller and turret firms) the remuneration on State capital is limited to a reward for management and a sum to cover the risk, if any, to the contractor in respect of the additional turnover. In normal cases one-eighth of the value of state assets is added to the value of the capital provided by the firm, and the resultant sum is used to calculate the turnover-capital ratio. This is equivalent to granting for State-assets one eighth of the profit rate on the company's capital. Thus the profit ' mark-up ' on cost is obtained by dividing the appropriate rate of profit on capital employed by the turnover-capital ratio.

' Capital employed ' is calculated by the E.P.T. method, described in the Finance (No. 2) Act 1939. Very broadly this means the difference between the assets and the liabilities of the firm, the former being valued at the price at which the assets were acquired (or its equivalent) subject to permitted deductions for wear and tear or depreciation. Thus two firms with identical physical assets, but bought at different times, will

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weighty objection is that the Government appears to have acquiesced in a distinction between war contracts and ' non-war ' contracts, by which prices of the latter are exempt from control. This distinction has no economic justificaton.

[1] Turnover is never precisely defined. On the basis of the figures quoted in the Table, see p. 88 it would appear reasonable to identify turnover with ' cost-of-sales,' a term used elsewhere for the value of output at cost. Cost of sales *plus* profit gives turnover in the usual sense. In view of this unusual use of the term ' turnover ' we refer to the profit ' mark-up ' rather than profit margin.

[2] Select Committee, Fourteenth Report 1942—3, p. 102. This statement which applies to M.A.P. contracts, appears slightly misleading. Since the essence of fixed price contracts is to settle them before production begins, or at an early stage, neither the total capital employed by the firm nor its total turnover for the period in which the contract falls can be known exactly, and presumably the ratio is based on estimates. This view seems to be confirmed by figures given in Appendix 15 to the Minutes of Evidence before the Committee of Public Accounts, 1944.

have different 'capital employed' in the business. Furthermore, 'the working capital which is calculated for E.P.T. purposes is affected to a considerable degree by the dates at which taxation is respectively due and paid and by many things which are entirely extraneous to a scientific calculation of what the true capital employed is.'[1] In the case of one aircraft firm, for example, the turnover-capital ratio worked out at 19.36: '. . . anybody who knows anything about aircraft production knows that there is no truth in that.'[2] The turnover-capital ratio also shows some astonishing changes from year to year. 'We have instances where there is a difference of five times from year to year in the ratio.'[1] Such changes may be due either to changes in the turnover (one could anticipate a rise in the ratio as production expands) or they may be due to changes in the figures of capital employed, which may correspond to an increase in capital in the economic sense or may be merely fortuitous, depending, for example, on the dates of tax payments. In cases where the Department has reason to believe that there is 'something funny about' the capital employed they may rest content with an agreed price if the profit rate on cost is low.

The extra profits permitted under items (*b*) and (*c*), for abnormal risk and as an incentive to efficiency are definitely *conceived* in terms of rates on cost. There do not seem to be very precise rules for estimating the extra mark-up which should be permitted, as is shown by the following interchange, taken from the Minutes of Evidence, Committee of Public Accounts 1944:

(3871) 'But we have to place contracts. We cannot say that because the year after next the contractor may by some marvellous change in the amount of his capital employed and turnover, make a profit of 20 per cent on his capital employed, therefore, we must think of this ahead and say: 'We cannot give him 3 per cent because, if we do, he will make 20 per cent on his capital employed. Therefore we must give him 7½ 20ths of 3 per cent.' We cannot do it.

(3872) I am unable to understand that, because if you base your calculation upon the cost of the article and not upon capital employed, surely there is a very large range of fractions which you can use. You can deal with it in twelfths or in hundredths or anything you like—2.1 per cent, or 2.2 per cent. Surely you do not need to jump up whole percentages in making this estimation?—When you sit across the table arguing a price with a contractor you both have in mind something as regards what the costs are going to be. You eventually arrive at a price. That price is not an exact estimation of costs plus, say, 2.125 per cent for profit; it is a price; it may be £1,500, £1,510, £1,520 or something of that sort.

(3873) We all know that, but am I to understand that all we are to deduce from these figures is that they are an indication of the relative skill in bargaining between the contractor and the Ministry?—That is in part what the figures showing the emergent profits compared with the prevailing profits on cost represent. The figures in relation to the capital employed are extremely misleading in some cases.'

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[1] Minutes of Evidence, Committee of Public Accounts 1944, Q.3795.

[2] *Ibid.* Q. 3795, average ratios for major aircraft contractors in 1941, 1942 and 1943 were 2.4, 2.75, and 2.9 respectively.

[3] *Ibid.* Q. 3815.

This difficulty arises because, in certain cases, the figures for capital employed are such that a 'reasonable' profit rate on capital employed gives an 'unreasonably' low mark-up on cost. The whole discussion before the Public Accounts Committee strongly suggests that the attempt to relate profits to capital employed cannot be followed up rigorously (at any rate if the E.P.T. figures are used) and that it is far more important to keep pressing on the mark-up on cost.

The ideal is to settle fixed price contracts before production begins. This is not always possible and the bulk of Ministry of Aircraft Production contracts, for example, are settled about a quarter the way through the contract.[1] The risk premium is lower, the later the settlement of the contract.

Once the price is settled it is a fundamental principle that it should be rigidly maintained. In practice there have been a large number of rebates where subsequent costing has shown abnormally high profits. The Departments cannot enforce such rebates, they simply go to the firm and say: 'Look here, do you not think you ought to give us something on this? Would you not like to give us something on this?'[2] There is no justification at all for such a policy in the case of firms which earn profits above their E.P.T. standard; while for firms which are running below standard the knowledge that a rebate may be requested can only reduce the incentive to efficiency. Moreover, the Departments themselves may become less insistent in pressing down prices, or in encouraging main contractors to 'squeeze' sub-contractors, if they know that mistakes can be partially rectified by later negotiations for rebates. It would have been, and would still be, for example, far more important in the case of sub-contracts, in which the excessive profits largely arise, if the efforts of the Department had been devoted to reorganising the placing of sub-contracts through Regional Boards, instead of to the collection of refunds.

It is interesting, in the light of the above discussion to look at the few data available about the results of the fixed price policy. Before the war and in its early stages it does not seem always to have been very successful. The best known example is that disclosed by a cost investigation conducted in 1941 into the fixed price contracts for 32 warships placed between 1936 and 1939, representing about a quarter of the ships ordered in the period.[3] The results were as follows :—

Profit on Cost *(Hull and Machinery)*	*Number of Cases.*
Less than 10 per cent	4
Between 10 and 20 per cent	5
,, 20 ,, 30 ,,	9
,, 30 ,, 40 ,,	7
,, 40 ,, 50 ,,	2
,, 50 ,, 60 ,,	1
,, 60 ,, 70 ,,	1
,, 70 ,, 80 ,,	2
Over 80 per cent	1

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[1] *Ibid.* Q. 3790.

[2] *Ibid.* Q. 3806.

[3] Report from the Committee of Public Accounts 1943, pp. 7—8.

No weighted average for all these contracts, whose total cost, including profit, was some £90 million, is given, but the unweighted average of the above figure gives a profit rate of 35 per cent *on cost.* No data are yet published to indicate the profit rates in subsequent periods. The most comprehensive data about fixed-price contracts have been given in Appendix 15 of the 1944 Report from the Committee of Public Accounts. They cover some 20 firms comprising all the principal contractors engaged almost exclusively on direct contracts with the Ministry of Aircraft Production.

Capital, Costs and Profits of 20 Principal Aircraft Contractors
Profit Percentage on Cost of Sales.

	1941	1942	1943
Cost of Sales	£150,000,000	£209,000,000	£250,000,000
Prevailing Profit Rates	4.41%	3.76%	3.4%
Emergent Profit Rate	6.38%	5.60%	—

Profit Percentage on Capital Employed
(Capital computed substantially on E.P.T. basis)

	1941	1942	1943
Total Capital	£62,700,000	£76,000,000	£86,000,000
Companies' Capital	£50,000,000	£54,000,000	£56,000,000
Government Capital	£12,700,000	£22,000,000	£30,000,000
Profit at prevailing rate as percentage of total capital	10.55%	10.32%	9.88%
Emergent profit as percentage of total capital	15.26%	15.37%	—
Profit at prevailing rate on Companies' capital as Percentage of that capital	12.82%	13.77%	14.23%
Emergent profit on Companies' capital as percentage of that capital	18.51%	20.40%	—
Profit at prevailing rate on Government capital as percentage of that capital	1.65%	1.90%	1.78%
Emergent profit on Government capital as percentage of that capital	2.50%	3.11%	

The 'prevailing profit rate' is the rate of profit which the Department allows for in fixing the price, The 'emergent profit' is the actual profit earned.

It will be noted that the prevailing profit rates on both the companies' capital and Government capital were slightly rising: but with the increase in the relative importance of the latter the over-all rate was falling. The prevailing rate on *cost,* however, was steadily falling.[1] The emergent rate on cost also fell from 1941 to 1942 but was in both years about 50% higher than the prevailing rate. It was suggested to the Public Accounts Committee that the difference between the emergent price and the prevailing rate is an indication of the success of the fixed price policy and shows the extent to which the firms beat the price. Such a conclusion, however, is not valid. The attitude of the Department in fixing a price should surely be to set it in such a way that only if the firm strives for maximum efficiency will it be able to earn the 'prevailing' rate: for the special efficiency bonuses for particular firms have already been included in the prevailing rate. Thus the continued gap between 'emergent' and 'prevailing' rates measures the failure of the Department to keep pace with the downward movement of costs.

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[1] In 1939, 1940 and 1941 profit rates on 'sales' in major American Aircraft contracts were respectively 16.1, 23.6 and 27.0. *Office of Price Administration, War Profit Studies No. 2.*

V. FUTURE POLICY.

The decline in the total volume of war contracts will begin very shortly, if it has not already begun. Whether this will lead to an easing of the pressure on capacity, which would give the Departments a wider field of choice among contractors, remains to be seen. In any case, however, a return to the competitive tender in its pre-war form is undesirable. Under the monopolistic conditions of modern industry it offers little guarantee of efficiency and against abnormal profits.[1]

So long as non-monetary considerations continue to dictate the placing of contracts with particular firms the need is to eliminate the weaknesses discussed above. But it would be a mistake not to apply the lessons of war contract experience to the wider field. There will be no lessening after the war of the necessity to secure maximum output with minimum costs in the economy as a whole. The above discussion gives certain pointers to future policy.

The great differences in profit rates between main contracts and subcontracts[2] expose the advantages of buying on large scale, combined with the right to secure information about costs. Supply Departments may be described in economic terms as Wholesale Agencies which bring together the needs of the consumer (the Services) and organise the placing of contracts with manufacturers. The decline of the 'wholesaler' in the peace-time economy is a well-known phenomenon. A Government Wholesale Agency may prove to be one of the most powerful means of stimulating efficiency and of fixing prices which fully maintain the profit incentive but which eliminate the monopolistic elements in profits, thus assisting a policy of full employment.[3] The best type of contract for this purpose is, by common consent, the *fixed* or *firm price* contract. In such contracts an allowance has to be made for the expected or 'prevailing' profit rate. Originally the intention was to relate profits to capital employed: in the event the rate on capital employed has often proved misleading. It is far more important to watch the 'mark-up' on cost. There are no absolute economic principles which determine quantitatively what the mark-up should be in the absence of E.P.T. Firm contracts on a large scale reduce the risk to the firms thus permitting a lower margin. Moreover, the monopsony of Government Departments (or of a Government Wholesale Agency) puts them in a strong position to eliminate monopolistic profits. The extent to which the Government can ' squeeze ' in this way depends upon the range of industry covered by Government bulk purchase. If the Government is buying only a part of the output of a firm (or an industry), it cannot press too hard a bargain in a fully employed economy without driving the firm into the non-Government sector where monopolistic profits are not controlled. Thus the study of future contract policy inevitably leads to a consideration of monopolistic practices and efficiency in the economy as a whole.

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[1] There are other objections to the competitive tender as used before the war. *Cf.* 'The Placing and Management of Building Contracts' Report of the Central Council for Works and Buildings, 1944.

[2] cf. p. 84

[3] E. F. Schumacher 'An Essay in the State Control of Business' *Agenda* Vol. III, No. 1, 1944 and Institute of Statistics 'The Economics of Full Employment,' 1944, pp. 66—7.

The key to the success of contract placing is adequate information about costs at an early stage in production. The war experience ' bears eloquent testimony to the need for a uniform and agreed set of costing principles and the general inadequacy of the costing records available in industry.'[1] The elaboration of agreed principles is clearly a very big job and requires the detailed study of the mass of information which has been collected by Departments during the war. For a long time a unification of accounting systems has been advocated, but relatively little progress was made between the two wars. More progress has been made during the war,[2] but it will only continue to be made if some lead is given and that only the Government can do.

The few published data do not allow any very definite conclusions to be reached. An inter-departmental review in the transition period will no doubt be of value, but the problem is of such importance, and has such wide implications that it is to be hoped that the Government will accept the recommendation of the Select Committee on National Expenditure for a full-scale review of the whole field of war contract procedure.

G. D. N. WORSWICK.

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[1] H. W. Singer ' Standardised Accountancy in Germany ' National Institute of Economic and Social Research, Occasional Paper, V. p. 60.

[2] *Ibid.* p. 65.

WORKING-CLASS HOUSING AT ECONOMIC RENTS

It is frequently asserted that working-class housing cannot be provided at ' economic rents.' In this form the statement is untenable. Under laisser-faire conditions rents, like other prices, would automatically regulate the demand for and supply of housing accommodation according to capacity to pay. Rents which are high in relation to income would certainly lead to overcrowding or other forms of 'bad housing.' If 'bad housing' is regarded as socially undesirable, the question arises whether good or adequate housing can be provided at conventional rent levels without subsidies. In determining ' adequacy of accommodation ' and ' tolerable rents ' certain social conventions enter into the picture which require closer definition.

Since the introduction of rent control during the last war the structure of rents deviated from that which the market would bring about and a policy of subsidies which aimed at keeping rents of new houses, built in periods of higher price levels, reasonably in line with rents of controlled houses tended to preserve this state of affairs in the inter-war period. During this war rents have been controlled again and it is expected that the post-war price level will be appreciably higher than that of 1938. The question will therefore arise again whether low-rent working-class houses can be provided without subsidies after this war.

CONVENTIONAL LOW RENTS

The average working-class rent, as given by the 1937-38 Budget Enquiry of the Ministry of Labour, was 10/8 a week, or, say, £28 per annum. This represented slightly more than 15% of the representative working-class family income of £3 10s. 0d. per week. For lower incomes rent as a proportion of income rose rapidly to about 20% for incomes of £2 10s. 0d. and to 30% for very low incomes, while it declined to about 7% for incomes of £6—7 per week. Results of the Bristol Social Survey (1937) recently published[1] show that for the income range of £2—4 the proportion spent on rent (inclusive of rates) varies between 15 and 20 per cent of the gross income, while 'the average Bristol working-class family paid about 15% of its income in the form of rents.' Allen and Bowley obtained from a 1932 Budget Enquiry a regression equation which after transformation may be written $y = 6.7 + 2.0\,x$, where y is rent and rates in shillings per week and x total family expenditure in pounds per week. The resulting proportions of rent to total expenditure are slightly higher than the figures given above ; partly because the enquiry related mainly to London where rents are higher ; partly because rent is related to expenditure and not to income ; partly because incomes in that period were depressed. It would seem, therefore, that by taking as a social target an expenditure of 15 per cent of income on all-in rent for the average working-class famliy we have a reasonable definition of ' low rents.'

If a similar relationship were to hold good in post-war years ' low rents ' of newly-built houses might be higher in the same proportion as average wage rates are higher. If wages settle down at a level, say, 40 per cent above pre-war, then conventional low average rents of post-war houses could be in the neighbourhood of 15/- per week or £37 per annum.

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[1] *Review of Economic Studies*, 1945.

BUILDING COSTS

Pre-war building methods and costs and the level of pre-war interest made it impossible to build 'low rent houses' of the accepted type at economic rents. Can we hope that building technique can be sufficiently advanced and capital costs be far enough reduced to provide houses of similar or superior quality without subsidies to working-class families of average size and average income?

The Dudley Committee[1] gives the cost of a house of 1939 type at 1939 prices as £335 plus the cost of developed land of, say, £70. If the suggested improvements (bigger size and outbuildings) were incorporated the cost would have been about £100 higher. The pre-war total cost of a post-war standard house may therefore be put at £500.

This total cost may be split up in various ways. The cost of an ordinary brick house (excluding land) is said to be made up of:

40%	labour
54%	materials and components brought to the site
6%	overheads
100%	

A second division of cost may be given thus:

Land (including street and site work)	25%
Shell of house	30%
Fittings	45%
	100%

This percentage distribution of cost will vary with the type of house the nature of the land, the size of the building project and so forth, and no great accuracy can be claimed for it. For our purposes it is sufficient to obtain an idea of the order of magnitude of the various cost items. It is significant that of the cost of a house more than 50 per cent goes into materials bought, and that more than two-fifths goes into fittings, while the bare shell only accounts for a third of total costs. The prospects of lowering building costs cannot be as bleak as they are sometimes presented if the share of the manufacturing industries in the gross product of building is so substantial.

It has been suggested that overall labour productivity in manufacture ing industry increased by something like 10 to 15 per cent during the five years of war, and if efforts to standardise parts and to reduce the number of types of fittings and improvements in design (like the 'service shaft' and similar devices) are introduced the saving in man-hours may very well be greater.

In view of the progress in civil engineering, improvements in site and road work may also yield economies of the order of 10%. Even if the productivity of building labour used in the construction of the shell has remained unaltered, the total cost of a house might on these assumptions be something like 10 per cent lower in terms of man-hours than it was in

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[1] Design of Dwellings, Report by a Committee of the Ministry of Health.

1938. In other words, labour of post-war productivity could produce the improved 1939 house, at given pre-war prices and wages, about 10% cheaper, i.e. at £450 instead of at £500. As a first approximation we should expect that a general rise of wages and prices since 1938 by about 40 per cent would be reflected in a similar rise in building costs, having in mind that materials and components used in building are drawn from a wide range of manufacturing industries. The Dudley House should therefore cost £640, if allowance is made for a 10 per cent rise in productivity, or £700 at 1938 productivity levels.

Estimates of housing costs circulating at present are very much higher and actual costs during the war are said to be almost 90 per cent higher than in 1938.[1] This is not unlikely, and it cannot be expected that all the potential economies mentioned above will accrue immediately after the end of war. In fact, economies in the material and components sector will take time to mature and may be compensated or over-compensated for a time by diseconomies in the construction of the shell. Raw material shortages, transport difficulties, maladjustments in the location of building labour etc., which have adversely affected productivity in building, will not disappear at once but will be reduced gradually.[2] The war-time achievement of a guaranteed working week will necessitate adjustments in building technique to minimise its effect on cost. Some of these war impediments to productivity will diminish automatically with the growth of supplies, others will need to be reduced by conscious public policy. The lessons of pricing of contracts, of technical and post-costing, of utility designs and price controls, of central purchasing agencies and so forth are available for application to the housing programme, at least as far as public housing is concerned. The Government has promised to retain the controls of building materials, but it is equally important that the supply and prices of what may be described in a wide sense as fittings should be included in the rationalising controls. The allocation of housing loans, or perhaps subsidies, gives the central departments power to lay down rules which aim at steadily reducing the *real* cost of the various standard types of houses during the reconstruction period, so that the money cost of building will rise in a smaller proportion than average wages. The size and urgency of the building programme will become more manageable if rationalisation leads to a reduction in real costs, and the 10 per cent reduction assumed above would seem to be practical politics within a period of, say, two years after the war.

Capital Costs and Rent

Rent must cover the interest on the capital sunk into the house and in addition amortisation charges, the cost of repairs, maintenance, management etc. and finally local rates. If sinking fund charges are 1 per cent of the total cost of the house[3] and if the cost of repairs etc.

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[1] See S. Moos, Bulletin Vol. 5, p. 225 *et seq.* and 241 *et seq.*

[2] See the discussion in 'Private Enterprise Housing,' issued by the Ministry of Health.

[3] Equivalent to a repayment period of about 46 years if the rate of interest is 3% and 56 years if the rate of interest is 2%.

expressed as a percentage of total cost, is also 1 per cent, then by adding two per cent to the rate of interest we obtain the net economic rent excluding local rates. The latter may be put at £10 per annum for the average working-class house.

It is obvious that the improved type of house recommended by the Dudley Report, costing, after allowance for a 10 per cent rise in productivity, £450 at 1939 prices or £640 at 40 per cent higher post-war prices, cannot be let at conventional rent levels (i.e. £28 p.a. pre-war or £39 p.a. post-war) unless the rate of interest for housing loans were as low as 2 per cent. Smaller improvements than those suggested in the Dudley Report or a greater increase in productivity might make it possible to provide houses at £400 (1939 prices). In this case interest rates of 2½ per cent would permit letting at economic rents.

The case for general subsidies—as distinct from specific social subsidies for the needy poor and large-sized family—to low-rent working-class housing seems to be based on the opinion that such interest rates are either practically out of bounds or, if attained, equivalent to subsidies. Does this view hold true in the light of economic theory and practice ?

The Government's policy with regard to housing loans is gradually taking shape. A Central Loan Fund will be established out of which Local Authorities will receive loan capital sanctioned by the Department responsible for the capital expenditure in question. This centralisation of borrowing could supply funds to Local Authorities at cheaper terms than they could obtain if they entered the market as independent borrowers, provided the Fund passes on the benefit of cheaper borrowing more or less fully to the Local Authorities. Broadly speaking this seems to be the aim of the Government, subject to the proviso that, apart from a small overall charge to cover administrative expenses Local Authorities will be charged interest rates according to the length of the loan period, rising from 2 per cent for loans with a currency up to five years to 3 per cent for loans of more than thirty years. If Treasury policy maintains the principle that loan periods must be related to the lifetime of the capital assets acquired with the loan, housing loans from the Fund will carry about 3 per cent interest, and subsidies for all public housing will become inevitable if rent levels are to bear the same relation to income as before the war.

But must this principle be maintained when borrowing is centralised, and must it be maintained for the critical reconstruction period ? The principle is borrowed from private enterprise. It is sound industrial and banking practice that short-term loans should be invested in short-term liquid assets and that fixed capital should be financed out of firms' own capital and long-term loans. To adjust the terms of the loan to the liquidity of the asset is an accepted rule of private finance, but this rule does not necessarily apply to Central Government finance. The liquidity of the State does not depend on the liquidity of its assets but on its power of taxation and its control over monetary affairs. The methods of financing public loan expenditure during the war have in this respect a direct bearing on the problem of housing finance. By having long- and short-term loans on tap the Government has paid for money borrowed during the war on the average about 2 per cent. There is no reason why this method of public finance should not be continued during the reconstruction period. Tap issues allow the public to decide how much they wish to hold of short- and long-term titles at given rates of interest. But the public's choice for Government titles of various types does not—certainly in war or in reconstruction—in any way pre-determine the Government's choice of loan expenditure on quickly wasting or lasting capital assets or on other objectives. The Government in fact makes separate decisions, taking each on its own merits : (*a*) it decides the size and direction of public expenditure, (*b*) it decides how much of this expenditure shall be met by taxation and how much by borrowing, and (*c*) it decides how the borrowing should be adjusted to suit the liquidity wishes of the public.

The idea that housing schemes in reconstruction can be financed, like battleships and aerodromes or shells and parachutes in war, by a mixture of short- and long-term borrowing, will perhaps not be regarded as so ' unsound ' after the war as it would have been in the 'thirties. But it is important to realise the conditions under which these new techniques are workable. In the inter-war period interest rates were often regarded as an instrument for regulating the foreign balance and for checking inflationary or deflationary tendencies at home. A return to fixed exchange rates and laisser-faire conditions in foreign trade and finance might re-establish the rate of interest as an important regulator. There is, however, agreement by now that, as far as capital movements are concerned, direct controls must be retained, and it is likely that most countries must retain direct controls of current trade transactions at least for the reconstruction period. It is the continued existence of such direct controls over capital movements and of improved methods for regulating the level of effective demand which enables countries to pursue an autonomous interest policy. If this autonomy, which has been achieved in war, can be retained on a modified basis in peace, interest rates can be kept stable at the present level. No risk would then be involved in financing housing schemes by short-term loans or by a mixture of short and long loans. For short loans could always be renewed at the same terms. There would be no need to adjust loan periods to the lifetime of the assets ; the nature and priority of the expenditure project, not the durability of the asset, would determine the interest charge.

If it is assumed that future governments might raise interest rates either in spite of an existing monetary autonomy or because of its gradual abandonment, the attractiveness of an admixture of short-term finance for housing loans is somewhat reduced. For upward changes in interest rates would necessarily imply increased rent charges, which could then only be avoided if the difference in the interest burden is borne by subsidies. Against the potential risk of having to borrow at higher rates (which, however, will only become real, if the Government decides to allow the rate to rise) and the concomitant risk of having to subsidise rents must, however, be set the fact that borrowing at the average of short and long loans will always be cheaper than housing financed entirely by long loans, and that in any case the size of the subsidy problem is correspondingly reduced. Moreover, when costs of building are particularly high, as they are now and will be immediately after the war, the need for cheap finance seems particularly urgent.

Finally it should be stressed that no subsidy element is involved in this method of financing public housing. The State inevitably borrows at a ' riskless ' rate and is in any case responsible for the liquidity of the economy as a whole in a way in which no single Local Authority or private concern is, and can, therefore, finance loan expenditure at better terms. Moreover, by centralising housing finance the State, as an indirect owner of houses all over the country, reaps, like any big housing company would, the advantages of risk reduction by risk spreading.

We conclude, therefore, that the provision of working-class houses without subsidies is possible (*a*) if rents are related to average working class income in the way indicated above, (*b*) if a reduction of the real cost of building by raising the productivity, above all in the building materials and components sector, is achieved by applying war-time methods of rationalisation to the building industry; (*c*) if housing loans through the Central Loan Fund are made available at average rates of interest instead of at the longest term rates; and (*d*) if conditions are maintained which allow a continuance of a policy of low and steady interest rates.

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